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### **REMARKS**

# STATUS OF CLAIMS

Claims in the application that were rejected in the Final Rejection were claims 2-14 and 16-32. In this instant Amendment claims 5, 16-29, and 31 are cancelled, leaving claims 2-4, 6-14, 30 and 32 remaining for examination.

In claims 10, 30 and 32, reference to "diblock" has been cancelled, thus limiting all the claims to "triblock" surfactants.

In claims 30 and 32, reference to "effective amounts", which the Examiner has questioned as violating 35 USC 112, has been cancelled.

In claims 30 and 32, the amount of surfactant has now been set forth in terms of surfactant to monomer ratio which language finds basis on page 10, first 3 lines of paragraph 0035 of the specification.

In as much as the offending term "effective amount" has been removed, this should overcome the section 112 rejection and reduce the number of issues for continued prosecution.

## **REJECTION UNDER 35 USC 112**

The Examiner's objection under section 112 was that the term "effective amount" was an indefinite term. The term has been cancelled and replaced with a numerical recitation of the amount of surfactant covered. Basis in the text is as described further above.

#### **REJECTIONS UNDER 35 USC 102 AND 103**

In the Final Office Action dated October 19, 2006, claims 2-14 and 16-32 were rejected under 35 USC 102 b or 35 USC 103(a) as unpatentable over any one of Lissant USP <u>3 974 116</u>, Robinson USP <u>4 339 371</u> or O'Connor USP <u>5 376 713</u>.

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# Lissant USP 3 974 116

The Examiner sets forth his position in the non-final office action of February 10, 2006 on page 4 where he says Lissant teaches copolymers of anionic and non-ionic monomers made by reverse emulsion polymerization with a diblock or triblock surfactant.

A close reading of Lissant reveals that its teaching does not focus on applicants' invention any where near as much as it seems. But first, please note that applicants' claims 30 and 32 have been amended to recite that what is being claimed is a <u>copolymer</u> which has been made using a certain surfactant (which applicants have now limited to "triblocks."

By using the term "consists of" in place of "comprises" it is seen that the copolymers now claimed are copolymers of <u>nonionic</u> monomers and <u>cationic</u> monomers. It should be clear that the copolymer now claimed cannot contain any anionic segments.

In contrast, a reading of Lissant reveals that he is not teaching copolymers, but rather is saying his surfactant can be used to make anionic polymers or cationic polymers. He never teaches or suggests that copolymers containing anionic and cationic or nonionic moieties can be made. See for example, column 1, lines 58-68 where he discusses the various types of known polymers that can be made using his surfactant. There is nothing in that passage that hints that copolymers can be made. Applicants respectfully submit that Lissant should be discarded as a reference for the foregoing reason. At any rate, applicants point out that nowhere does Lissant describe a surfactant recited in claim 4 and that claim should be allowed for that reason alone.

### Robinson USP 4 339 371

The Examiner says that while Robinson "may not expressly teach the product to be prepared by the process recited in the claims, the product is the same as, or an obvious variant of the presently claimed product…"

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The Examiner is <u>assuming</u> applicants claimed product is the same or is obvious as the products of Robinson (see first office action, dated February 9, 2005). But assumptions, guesses, hunches, and the like are not sufficient in the Patent Law. The Patent Law requires certainty in prior art teachings. Robinson uses as his primary surfactant a <u>diblock polymer</u> whose formula is set forth in column 1, line 56-65. He then uses a secondary surfactant that is a triblock polymer. (See column 2, lines 38-45).

Now that applicant has by this amendment, amended his claims to cover only triblock surfactants, it cannot be assumed that a process, such as Robinsons, produces polymers covered by applicants' claims when Robinson uses a different surfactant system.

It cannot be assumed that use of a diblock followed by a triblock (Robinson) is the same as a system that uses only a triblock (applicants). Moreover, Robinson says that when the triblock is used alone, it does not work in his system. (see column 8, lines 60-62). This is cogent evidence that his system is not the same as applicants (especially now that applicants' claims cover only triblock surfactants).

In view of the foregoing, applicants respectfully submit that Robinson fails as a reference, especially now that applicants' claims are limited to triblocks.

## O'Connor USP 5 376 713

This reference was first cited against the claims in the Office Action dated February 10, 2006. It was included in a list of five references cited against claims 2-14 and 16-32 under 35 USC 102 and 103. The reasons for rejection were the same for all five references.

The Examiner said they all, including O'Connor, teach copolymers of anionic and nonionic monomers made by reverse emulsion polymerization with use of diblock or triblock surfactants. The Examiner added that any property differences

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would be obvious, but he did not indicate where in any of the cited references the basis for that statement was located.

There is <u>no</u> hint in O'Connor that only a triblock emulsifier can be used. O'Connor does not suggest that whatsoever. There is no basis in O'Connor to use only triblock emulsifiers. Given there is no suggestion for that, O'Connor would seem to fail as a valid reference. Applicants point out that O'Connor seems to use less surfactant than is taught by applicants. Specifically, at column 11, lines 35-47, O'Connor uses about 1:100 triblock surfactant to monomer. The table on those lines show 1.15 gm. of surfactant is used with 46.15 gm. acrylic acid and 133.91 gm acrylamide of 51.9% concentration which comes out to about 69 gm acrylamide. This is far less than the ratio of at least 3:100 now recited in claims 30 and 32.

However, there is another important reason why use of O'Connor is inappropriate. At column 2, lines 43-50 he says he must use two surfactant 1) a partially exterified, dialkanol fatty amide and 2) an ethylene oxide adduct of a long chain compound having reactive hydroxyl and/or carboxyl groups. This is not the same as applicants recitation in the claims.

### **DOUBLE PATENTING**

This rejection was first made in the office action of February 10, 2006, wherein the Examiner says the rejection was provisional and was based on the nonstatutory ground of double patenting.

Specifically, applicants claims 2-14 and 16-32 were rejected over claims 2-5, 7, 9 and 11-33 of USSN 10/313 632.

The Examiner's position was that common subject matter was being claimed. However, now that applicants herein have amended the claims, the rejection must be re-examined. Applicants' claims now under examination are claims 2-4, 6-14, 30 and 32. Claims 2-4 and 6-14 depend ultimately on claim 30. Claim 32 has no claims dependent on it.

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In claim 30 and 32 it is seen that they now recite that the copolymer "is composed of" the non-ionic segment and the cationic segment. By use of the term "composed of", no ionic segments can be present. Accordingly, it is believed the double patent rejection has been overcome inasmuch in USSN 10/3113 632 all claims recite that the polymers therein have anionic and non-ionic segments. There is no mention of cationic segments in the claims. Accordingly, it is submitted there is no overlap of claims and the double patenting rejection should be overcome.

## CONCLUSION

In view of the foregoing, applicants respectfully submit the claims herein are free of objections and rejections and their allowance and passage to issuance is respectfully requested.

#### REQUEST FOR CONTINUED EXAMINATION

A request for continued examination and a request for extension of time are submitted herewith, in order to give the Examiner time to consider applicants remarks in light of the much reduced scope of the invention now being claimed.

Respectfully submitted,

Gary A. Samuels
Attorney for Applicant

Reg. No. 20,811

Hercules Incorporated 1313 N. Market Street Hercules Plaza Wilmington, DE 19894-0001 Attorney's Phone: (302) 594-6813 March 9, 2007 :\DEBLETTERS\10292 amendment